

REMARKS

Status of the Claims

Claims 1-7 are pending in this application. Applicant respectfully requests reconsideration in view of the amendments and remarks herein.

Amendments to the Claims

Applicant has amended independent claim 1 to incorporate a portion of dependent claim 2, which is correspondingly amended. New independent claim 28 has been added, including features of both claims 1 and 2. Additional support for new claim 28 can be found throughout the application, for example in paragraph [0037] of the published application. No new matter is added.

Claim Rejections

In the Advisory Action, the Examiner asserts that the application is not in condition for allowance. Applicant thanks the Examiner for further articulating his argument regarding U.S. Patent No. 4,649,918 (“Pegg”) and U.S. Patent No. 3,605,721 (“Hallac”), but in light of the above amendments and the following remarks, Applicant submits that claims 1-7 and 28 are in condition for allowance.

In the Office Action dated August 14, 2007, the Examiner rejected claim 1 pursuant to 35 U.S.C. §103(a) as obvious over Pegg in view of Hallac. In rejecting claim 2, the Examiner asserted Pegg in view of Hallac and further in view of U.S. Patent No. 4,142,517 (“Stavropoulos”), stating that Pegg and Hallac teach the claimed invention except for the “sheath mated to the tube and including one or more markings.” However, Pegg in view of Hallac and further in view of Stavropoulos does not make claim 1, as now amended to include limitations of claim 2, obvious.

Independent claim 1 recites an apparatus for harvesting plugs from bone tissue that includes a tube having an inner bore running at least part-way therethrough for receiving a bone plug. Claim 1 also recites a sheath disposed around the tube and including a tooth, extending towards the inner bore in a direction substantially orthogonal to the cutting edge, for cutting bone in a direction substantially orthogonal to the cutting edge in order to extract a bone plug.

Stavropoulos does not disclose a sheath disposed around the tube and including a tooth for cutting bone as recited in claim 1. The sheath (18) in Stavropoulos does not include a tooth of any

sort, much less a tooth for cutting bone. Therefore, Stavropoulos does not remedy the deficiencies of Pegg and Hallac.

One having ordinary skill in the art would not be motivated to modify the bone core removing tool of Pegg to include a sheath as disclosed in Stavropoulos. The Examiner asserts that it would have been obvious to modify the device of Pegg in view of Hallac to include a sheath, as taught by Stavropoulos, "for harvesting bone plugs." As an initial matter, the sheath taught by Stavropoulos does not harvest a bone plug. Rather, as explained at Col. 1, lines 7-8 of Stavropoulos, "the invention relates to extracting solid samples of marrow from a bone marrow cavity." Extracting bone marrow is a different procedure from harvesting bone plugs and uses different surgical techniques and devices. Thus, one skilled in the art would not be motivated to modify Pegg in view of Hallac to include a sheath for harvesting a bone plug because Stavropoulos does not teach or even suggest a sheath for such a purpose.

Moreover, there is no advantage to modifying the tool (20) of Pegg to include a sheath disposed around the tool (20) because Pegg already discloses features specifically designed to cut and extract a bone sample. The strongest rationale for combining references is a recognition that some advantage of expected beneficial result would be produced by the combination. (See MPEP §2144). As explained at Col. 2, lines 47-56, the removal tool (20) includes three teeth (34, 36, 38) positioned just inside the cutting edge (26). Pegg goes on to explain that as the tool (20) is rotated, the bone core is forced to break loose from the surrounding bone at the cutting edge (26) and the teeth (34, 36, 38) are embedded into the bone core such that the bone core is extracted along with the tool (20) upon removal. Since Pegg specifically discloses the cutting edge (26) and the teeth (34, 36, 38) to cut and capture a bone core, there is no need to modify Pegg to include a sheath to accomplish the same. Even further, modifying Pegg to include a sheath, as taught by Stavropoulos, would complicate the use of the Pegg device. Adding a sheath to the tool (20) would increase the diameter of the tool (20), making it more unwieldy and more likely to traumatize the surgical site.

Accordingly, claim 1, as well as claims 2-7 which depend on claim 1, are distinguishable over Pegg, Hallac, and Stavropoulos, either taken alone or in combination, and represent allowable subject matter.

New Claim 28

Independent claim 28 recites an apparatus for harvesting plugs from bone tissue including a tube having an inner bore running at least part-way therethrough for receiving a bone plug, and a mating element formed on a proximal end thereof. Claim 28 also recites a sheath disposed around the tube and having a cutting edge at a distal end for harvesting a bone plug from bone tissue, and a tooth at the distal end extending towards the inner bore in a direction substantially orthogonal to the cutting edge for cutting bone in a direction substantially orthogonal to the cutting edge in order to extract a bone plug, the sheath including a connector disposed at a proximal end thereof and configured to removably engage the mating element. At least for the reasons discussed above regarding claim 1, claim 28 distinguishes over Pegg, Hallac, and Stavropoulos, alone or in combination. Therefore, claim 28 represents allowable subject matter.

Conclusion

Applicant submits that all claims are in condition for allowance, and allowance thereof is respectfully requested. Amendment of the claims does not constitute a concession that the claims are not allowable in their unamended form. The Examiner is encouraged to telephone the undersigned attorney for Applicant if such communication is deemed to expedite prosecution of this application.

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Respectfully submitted,

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